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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/402,674 10/08/99 KOISTINEN

J 365-428PCT

IM52/0823
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EXAMINER

EINSMANN, M

ART UNIT

PAPER NUMBER

1751

DATE MAILED:

08/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary	Application N .		Applicant(s)	
	09/402,674		KOISTINEN ET AL	
	Examiner		Art Unit	
	Margaret Einsmann		1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 6/1/2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-9 and 16-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-9, 16-~~16~~ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's amendment received June 11, 2001 has been entered and applicant's remarks considered. The pending claims are claims 1-9, 16-26.

Claims 1-9, 16-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejections under this section as applied in the previous action and not maintained below have been overcome by applicant's amendments and arguments.

Applicant has responded to the rejection regarding the second option in claim 1 by stating that 2-butyl-2-ethyl-1,3-propanediol is an ester. This argument is not persuasive. It is not an ester; it is a polyol and thus the requirement for correction on line 10 of claim 1 is maintained. The ester to be mixed with HPHP is an ester of 2-butyl-2-ethyl-1,3-propanediol. This rejection applies in the same manner to newly submitted claim 17.

Applicant has responded to the query regarding "in situ" by stating that the specification defines said term on page 3. This argument is not persuasive because the examiner can find no definition of the term at that place. Applicant states that the term means that the mixing of the polyols and the esterification of the resulting mixture is performed in the same vessel. The specification does not give that definition for "in situ." If applicant wishes a claim to state that the polyols are first mixed and then esterified, and that the two steps take place in the same vessel, or that the two steps take place in situ, then that information needs to be put into the claim. Pending claim 2 does not have that meaning. Claim 2 does not further limit claim 1. Claim 1 is a composition claim. Claim 2 attempts to put process limitations on a process that is not included in claim 1. Since claim 1 does not claim a process of mixing polyols and then

Art Unit: 1751

esterifying them, how can claim 2 then state that that two step process is performed in the same vessel?

Claim Rejections - 35 USC § 102

I. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakahara et al., US 5,374,366. Example 10 in column 9 anticipates these claims. Hydroxypivalic acid neopentyl glycol monoester, the first reactant mentioned in this example, is also named 3-hydroxy-2,2-dimethyl-propyl-3-hydroxy-2,2-dimethylpropionate ester. This is applicant's first claimed component. It is reacted with a mixture of neopentylglycol and succinic acid, caproic acid and 2-ethylhexanoic acid. As can be seen, the reaction mixture contains both linear and branched carboxylic acids reading on claim 3; 2-ethylhexanoic acid reading on claim 4; a mixture of mono- and dibasic carboxylic acids, reading on claims 5 and 6. The dibasic acid is succinic acid, thus meeting the limit of applicant's claim 7. The ratio of dibasic acid to monobasic acids is one mole succinic acid to two moles of monobasic acids, which in example 10 are 2-ethylhexanoic acid and caproic acid. The product of this reaction (J) was mixed with HFC 134a (Col 12 lines 53 et seq) and tested for miscibility.

Claim Rejections - 35 USC § 103

II. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

III. Claims 1-9,16-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara et al. Nakahara et al. disclose compositions comprising lubricating oils synthesized from esters combined with various polyols and linear and branched mono- and di- carboxylic acids, said oils mixed with fluorocarbon refrigerants. The glycols and carboxylic acids used are listed in columns 3 and 4 and include nearly all claimed. See also col 1 line 46 to col 2 line 48. Regarding the newly added claims 17-26, esters of all of the claimed polyols are disclosed in col 4, the individual mono- and di- carboxylic acids are listed in columns 3 and 4. Patentee claims and even exemplifies the formation of mixed esters. See example 10. Patentee states that the esterification product may be produced either in a one-stage process in which all of the starting materials are reacted at the same time, or in a two step process. See col 4 lines 50 et seq.

It would have been obvious to the skilled artisan that all of the mixed ester oils claimed fall within the disclosure of this reference, since patentees state that the ester oils can be synthesized from many, if not all of the individual components claimed.

Response to arguments

Applicant argues the 102 rejection of the claims as anticipated by stating that the product of example 10 of Nakahara et al. is different from his product because (1) it is made in a two step process . There are no process limitations in the claims. Additionally, both the process of Nakahara and the process in applicant's specification start with an ester which is also a glycol, then reacts with a mixture of acids. Applicant then states (2) that the mixture of acids must be in a ratio of 50:50 to 95:5. This limitation is missing from all but one of the instant claims. Therefore, applicant is arguing limitations that are not in the claims. However, that limit is also taught by example 10 of Nakahara since two moles of monobasic acids (caproic and 2-ethylhexyl) are combined with one mole of dibasic acid (succinic) which are then combined with a mole of the ester, which is HPHP, the same as applicant is using as the starting material. Applicant states that the starting product of example 10 is not HPHP. Applicant is requested to provide structures of the two starting compounds in order to indicate the difference in the two starting materials. Both starting materials use Hydroxypivalic acid which is monoesterified with a glycol. Neopentyl glycol is 2,2-dimethyl-1,3-propanediol. When the hydroxy in position 1 is esterified with hydroxypivalic acid, the resultant monoester is HPHP, 3-hydroxy-2,2,-dimethylpropyl-3-hydroxy-2,2-dimethylpropionate, or a mixture comprising said ester, absent evidence to the contrary.

Applicant argues the rejection of the claims as being obvious by stating that Nakahara does not disclose which particular combination of esters would yield the best refrigeration composition. Applicant has argued that the data in the specification shows the superiority of the inventive compositions. However, said data is not sufficient to overcome the rejection since it does not compare the closest art of record., which is Nakahara et al. Said comparison must be commensurate in scope with the claims.

Art Unit: 1751

The disclosure is objected to because of the following informalities: On page 1 line 31 the compound should be 3-hydroxy 2,2-dimethyl **propyl** -3-hydroxy-2,2,-dimethylpropionate.

Appropriate correction is required.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

IV. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret Einsmann whose telephone number is (703) 308-3826. The examiner can normally be reached on Monday to Thursday and alternate Fridays from 7:00 A.M. to 4:30 P.M. The fax phone number for this Technology Center is (703) 305-3599

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Application/Control Number: ***

Page 7

Art Unit: 1751

A handwritten signature in cursive script, reading "Margaret Einsmann".

MARGARET EINSMANN

PRIMARY EXAMINER 1751

8/22/01